

METHODS TO REDUCE ALKALI MATERIAL MIGRATION FROM NO<sub>x</sub>  
ADSORBER WASHCOAT TO CORDIERITE

ABSTRACT OF THE DISCLOSURE

An exhaust gas catalyst system, comprising: a substrate; and a nitrogen oxides adsorber deposited on said substrate, the nitrogen oxides adsorber comprising: a porous support; and a material loaded on said porous support comprising: a NO oxidation catalyst, at least one alkali material, and at least one alkali metal barrier.

An exhaust gas catalyst system, comprising: a substrate; an alkali metal barrier layer deposited on said substrate; and a nitrogen oxides adsorber deposited on said alkali metal barrier layer, the nitrogen oxides adsorber comprising: a porous support; and a material loaded on said porous support comprising a NO oxidation catalyst and at least one alkali material.

A method of reducing alkali material migration from a nitrogen oxides adsorber washcoat to a substrate, comprising: depositing on a substrate, an alkali metal barrier layer; and depositing on said alkali metal barrier layer, a nitrogen oxides adsorber composition comprising a material loaded on a porous support, the material comprising a NO oxidation catalyst and at least one alkali material.

A method of reducing alkali material migration from a nitrogen oxides adsorber washcoat to a substrate, comprising: depositing on a substrate, a nitrogen oxides adsorber composition comprising a material loaded on a porous support, the material comprising a NO<sub>x</sub> oxidation catalyst, at least one alkali material, and at least one alkali metal barrier.